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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,762	11/17/2003	Dennis J. Schloeman	10014406-3	3356

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HEWLETT-PACKARD COMPANY
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EXAMINER

NGUYEN, LAM S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,762

Applicant(s)

SCHLOEMAN ET AL.

Examiner

LAM S NGUYEN

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/17/2003</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 8, 9, 14-15, 20 are rejected under the judicially created doctrine of double patenting over claim 1 of U. S. Patent No. 6726300.

Claims 2, 10, 16 are rejected under the judicially created doctrine of double patenting over claim 2 of U. S. Patent No. 6726300.

Claim 3 is rejected under the judicially created doctrine of double patenting over claim 3 of U. S. Patent No. 6726300.

Claims 4, 11, 18 are rejected under the judicially created doctrine of double patenting over claim 4 of U. S. Patent No. 6726300.

Claim 5 is rejected under the judicially created doctrine of double patenting over claim 5 of U. S. Patent No. 6726300.

Claims 6, 12, 18 are rejected under the judicially created doctrine of double patenting over claim 6 of U. S. Patent No. 6726300.

Claims 7, 13, 19 are rejected under the judicially created doctrine of double patenting over claim 7 of U. S. Patent No. 6726300.

The reason of the rejection is that if the above claims are allowed, it would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2853

1. Claims 1-7, 9-13, 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saul (EP 1080898 A2) in view of Shiraishi et al. (US 6186611) and Rezanka (US 5751302).

Saul discloses a fluid ejection device comprising:

nozzles (FIG. 3, element 303);

firing resistors, wherein each firing resistor (FIG. 3, element 309), corresponds to a corresponding one of the nozzles (FIG. 3, element 303), wherein each firing resistor and corresponding nozzle are located in one zone of a plurality of zones (FIG. 6A) on the fluid ejection device (column 7, line 20), and wherein each zone has at least one firing resistor and corresponding nozzle;

Saul does not disclose addressable select logic responsive to a select address to couple multiple fire pulses to the firing resistors in the zones so that selected resistors in the same zone are coupled to a same fire pulse thereby control fluid ejection from the nozzles in the same zone corresponding to the selected firing resistors, wherein the select logic couples each fire pulse to a unique one or more zones for each value of the select address (**Referring to claim 2**), wherein the fluid ejection device is coupled to an electronic controller, wherein the select logic includes one or more multiplexers, and wherein the electronic controller provides the select address and the fire pulses (**Referring to claims 3, 5**).

Shiraishi et al. disclose an ink jet printer having a select logic unit responsive to a select address (FIG. 1, signal SEL) to couple multiple fire pulses (FIG. 1, signals SM1-4) to the firing elements (FIG. 1, element 1) in the zones (FIG. 1: a corresponding zone has one firing element) so that selected elements in the same zone are coupled to a same fire pulse thereby control fluid ejection from the nozzles in the same zone corresponding to the selected firing elements, wherein

Art Unit: 2853

the fluid ejection device is coupled to an electronic controller and the select logic includes one or more multiplexers (FIG. 1, element 11-14), and wherein the electronic controller provides the select address and the fire pulses (FIG. 1: a corresponding controller generates signal SEL) (Referring to claims 3, 5).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to include an addressable select logic responsive to couple multiple fire pulses to the firing elements as disclosed by Shiraishi et al. into the printing system disclosed by Saul to provide multiple fire pulses to the zones of firing elements. The motivation of doing so is to provide a gradation record control apparatus for an ink jet printer which can achieve a high-speed gradation printing as taught by Shiraishi et al. (column 2, line 40-44).

In addition, Saul does not disclose an internal power supply path configured to provide a substantially constant voltage coupled to the firing resistors.

However, Rezanka discloses an ink jet printhead including an internal power supply path configured to provide a substantially constant voltage coupled to firing resistors (FIG. 2, elements 38 and 28).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to include the internal power supply path configured to provide a substantially constant voltage coupled to firing resistors as disclosed by Rezanka into the printhead disclosed by Saul. The motivation of doing so is to provide a constant power supply to the firing resistors in order to stable the firing operation as taught by Rezanka (FIG. 2).

Saul also discloses the following claimed invention:

Referring to claims 2, 10, 16: wherein a unique one or more zones for each value of the select address is coupled to the fire pulse (column 7, line 7-15).

Referring to claims 4, 11, 17: wherein the zones are organized on the fluid ejection device into rows and columns (FIG. 5A), wherein if a value of the select address is a first select address, the select logic couples each fire pulse to each row so that each firing resistor in each zone in the row is coupled to the same fire pulse, and wherein if the value of the select address is a second select address, the select logic couples each fire pulse to each column so that each firing resistor in each zone in the column is coupled to the same fire pulse.

Referring to claims 6, 12, 18: further comprising feed slots, wherein each zone is defined to include only the nozzles in fluid communication with at least one feed slot, and wherein each feed slot has at least one zone (Fig. 5A: feed slots 502Y, 502M, 502C).

Referring to claims 7, 13, 19: wherein the nozzles in fluid communication with the at least one feed slot are disposed on the fluid ejection device to be adjacent to the at least one feed slot on either a first side or a second side of the at least one feed slot, wherein each zone is defined to include only the nozzles positioned on the first side, or only the nozzles positioned on the second side, and wherein either the first side or the second side has at least one zone (Fig. 5A: feed slots 502Y, 502M, 502C and column 7, line 7-27).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

Art Unit: 2853

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN
May 11, 2004


HAI PHAM
PRIMARY EXAMINER